GEELONG NATURALIST

Quarterly magazine of the Geelong Field Naturalists Club

In this issue...

Gang-gangs of the Otways

Surveying Long-nosed Potoroos

Latest fauna survey results

New style observation reports

Vol. 59 no. 3 SEPTEMBER 2023

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The GFNC respects, studies and explores the land, skies, waterways, plants and wildlife of our region, Wadawurrung Country.

GEELONG NATURALIST

ISSN 0726-7363

The magazine provides a channel for Club members and others to share and communicate their knowledge and research on natural history.

SUBMISSIONS

Submissions of a scientific nature or as informal contributions are welcome and will be due on **30 November** for the December 2023 issue. Email to **naturalist@gfnc.org.au**

Guidelines for contributors can be downloaded from **www.gfnc.org.au/about-us/**

COVER IMAGE

Australian King-Parrot *Alisterus scapularis* observed during the club excursion to Sheoaks Picnic area, Lorne 20/08/23. Image by Graham Possingham.

FROM THE EDITORS

Welcome to the new style *Geelong Naturalist*. The magazine has been significantly redesigned and now moves to a quarterly publication. The new style includes a brand-new design and layout, incorporating revised formats for club observation summaries and highlights, and collected reports of club activities held over the past three months. Previous magazine content such as the club's event calendar is available on the **GFNC website** and the members bi-monthly email newsletter will keep you up-to-date on meetings, excursions and more.

We extend a huge thank you to everyone involved in the redevelopment, from the initial review of the old publication in 2022 and through every stage of the redesign process this year. It was a significant undertaking that would not have been possible without your valuable input.

We are grateful for the wonderful contribution by the Editorial team, including copy editors Kester, Richard, Chrissy, Susan and Deborah who contribute many hours of their time to each publication. Special mention to Deborah for the amazing and professional job she does using her 'eagle eyes' combined with exceptional proof-reading skills, to ensure the accuracy of the magazine.

A special thank you to Alison Watson, a team member for many years and a recent editor, who helped with design ideas for the new style magazine.

Thank you also to all our contributors who have submitted articles, reports, photos and stories. Without your input there would be no magazine. On this note, we welcome submissions to the magazine. If you have an idea for an article, or photos to share please talk with us or submit your contribution at **naturalist@gfnc.org.au**

Happy reading,
Bernie Lingham and Jane Morrow

FROM THE PRESIDENT

The Geelong Nature Festival, themed 'Our backyard', opened on September 15 and runs until October 29. The Festival is a significant undertaking by the club, in partnership with the City of Greater Geelong, and with support from a number of organisations and community volunteer groups. This Festival is the descendant of earlier Geelong Nature Forums, which began in 2019, and is by far the most ambitious, featuring over 80 events. We extend our gratitude and thanks to Rod Lowther (coordinating club efforts), Tracey Hinton and Naomi Wells who helped the Festival reach fruition.

The club has funded a Scholarship for a conservation student at The Gordon since 2018. This year the $1500 award went to Biankah Paije Rose-Maher who is studying a Cert IV in Conservation and Ecosystem Management. She hopes to follow on with study towards a Diploma.

The club's Environment Fund supports worthwhile projects and you can read a summary of fund activities since inception on page two. The club also budgets $1000 a year for donations to organisations. This year we donated $100 to eBird, iNaturalist, Victorian National Parks Association and Environmental Justice Australia, and 'one off' donations of $300 each to Nature Glenelg Trust to help fund land purchase near Walker Swamp and to the Conservation Ecology Centre to help fund Otways feral pig control.

We recently donated several old and specialised books surplus to our needs to the Deakin University Special Collection where the items will be available to researchers. We still have some other historical publications and collections that need to be assessed.

The committee recently reviewed guidelines around conflict of interest associated with being a registered charity and endorsed a document that covers **Related Party Transactions And Conflicts Of Interest Policy And Procedures.** Committee members always recuse themselves from decisions with potential or actual conflict, but this helps formalise this and keep a record of when it takes place.

Graham Possingham

GFNC Environment Fund report on activities

Environment Fund Committee

During the seven years of operation the fund has received generous donations from club members and community members totalling $36 456. Individual donations have ranged from $5 to $20 000.

The management committee has been proactive in seeking projects that support the club purposes to which the Environment Fund donations can be applied. We focused particularly, but not exclusively, on supporting projects where young people are engaged in natural environment projects or studies. The purpose is to ensure funds are utilised to support a variety of worthwhile activities. Over $27 000 has been committed or paid to projects, and new projects are under active consideration.

Projects funded are listed below.

Year	Project Title	Recipient Name	Organisation
2018	Influence of rodenticides on mortality of raptors on the Bellarine Peninsula	Bellarine Landcare Group	Bellarine Landcare Group
2018	What is driving survival rates in Crested Terns?	Jessica Radford Honours student	Deakin University
2019	Discovery and observation of nocturnal arboreal mammals and birds in nesting hollows and boxes, for expansion of the GFNC Fauna Group activities	GFNC Fauna Group	GFNC
2020	Conserving threatened mammals in the face of fire and predation	Darcy Watchorn PhD student	Deakin University
2021	Movement and spatial ecology of Powerful Owls in western Victoria	Nicholas Carter PhD student and GFNC member	Deakin University
2022	MacKillop Education Mindful Twitchers	Kerrin Whiting Teacher	MacKillop Education Centre
2022	Improving the field efficiency of a large-scale research program in the Carlisle Heath, Victoria	Mark Le Pla PhD student	Conservation Ecology Centre
2022	Ecology of Powerful Owls (*Ninox strenua*) in different land-use types	Nicholas Carter PhD student and GFNC member	Deakin University
2023	Cooperation and coordination in Spotted Pardalotes (*Pardalotus punctatus*) in Brisbane Ranges National Park	Clara Borrel PhD student and GFNC member	Deakin University
2023	Carrying out vital flora community monitoring in the context of an adaptive fire management research program in the Otways	Tamika Farley-Lehmer PhD student	Conservation Ecology Centre

ABOUT THE ENVIRONMENT FUND

The Fund was established in 2016 and obtained registration under the Register of Environmental Organisations allowing the fund to receive tax-deductible donations to support the GFNC purposes.

To maintain the ability to receive tax-deductible donations it was necessary to register the GFNC with the Australian Charities and Not-for-profits Commission in 2022.

The Environment Fund Committee has set a funding limit of $2500 per annum for any project, with a maximum of $7500 total for any project over a three-year period.

The objective is not to fully fund projects but to provide additional appropriate support where there is co-funding by the project proponent.

Proposals for funding are welcome at any time.

The recipients of funds are asked to report to the club by way of oral presentations at GFNC meetings and with written reports which are published in the *Geelong Naturalist*.

Tax-deductible donations can be made to the fund at any time.

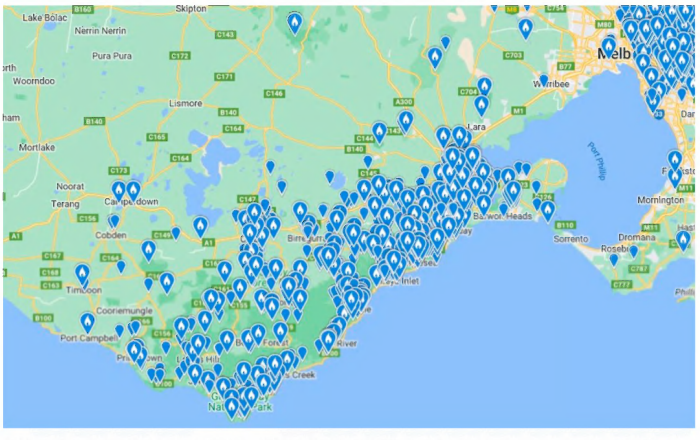
BSB 063 633
Account Number 10287433

The Gang-gangs of the Otways

Richard Alcorn

Gang-gang Cockatoo Illustration: Margaret Alcorn

The Otways population of the Gang-gang Cockatoo *Callocephalon fimbriatum* ranges from Port Campbell to Geelong (see Map 1), encompassing the local government areas of Corangamite, Colac-Otway, Surf Coast and Greater Geelong. The small number of observations from immediately outside this area indicates that the Otways population of Gang-gangs is largely isolated from other Victorian populations. For the purposes of this report, the aforementioned local government areas constitute the Otways region.



Map 1: Locations where Gang-gang Cockatoos were observed in the Otways and surrounds in the period 2013–2022 (eBird)

Gang-gangs nest in a 'hollow in trunk, limb or dead spout of large living eucalypt, usually near water', and usually in the period October–January (HANZAB p. 100). It is believed that Gang-gangs nest in the Otway forests (Belcher 1914, Pescott 1983, Morley 2018). However, there are no observations of Gang-gangs nesting in the Otways in eBird, nor can I find any other confirmed reports of nesting in the region.

There are 16 confirmed breeding observations for Gang-gangs in the Otways region in eBird; one of a pair copulating at Yaugher on 6 November 2010 and 15 of adults feeding young or of fledged young, all made between February–July. These observations are consistent with an October–January breeding season.

Gang-gangs are seen throughout the Otways region throughout the year (see Figure 1). They are less likely to be observed prior to and during the breeding season (August–January) and more likely to be observed immediately after the breeding season (February–May). Since the population is not moving into and out of the region en masse, and since the population size of such a long-lived species cannot fluctuate widely throughout the year, the most likely explanation is that, for reasons unknown, Gang-gangs are less detectable prior to and during the breeding season and more detectable immediately after the breeding season.

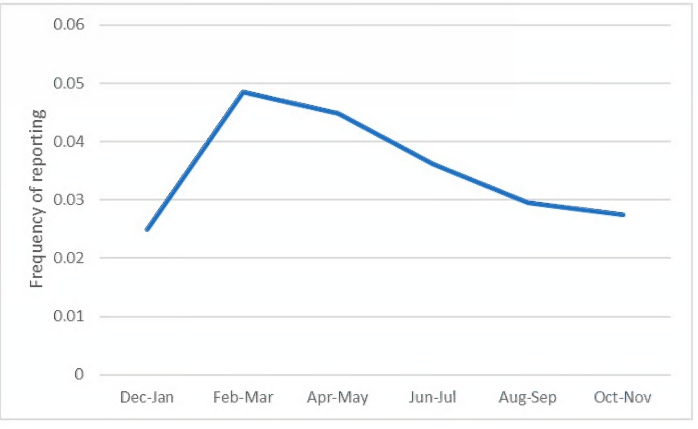


Figure 1: Frequency of reporting of Gang-gangs from the Otways region for the period 2013–2022[1]

[1] All data for Figures 1, 2 and 3 is based on 75 721 complete checklists submitted to eBird for the Otways region for the period 2013–2022. A complete eBird checklist is a list of all birds that an observer has identified at a specific location on a specific day.

Figure 2 shows how the frequency of reporting of Gang-gangs varies across the year by local government area. The sharp drop in Colac-Otway between April–May and June–July can be explained by a substantial portion of the population moving eastward towards the Surf Coast and Greater Geelong—if we accept that Gang-gangs are less detectable after the February–May period, thus dampening the expected rise in frequency of reporting in Surf Coast and Greater Geelong. This portion of the population moves westward again after August–September.

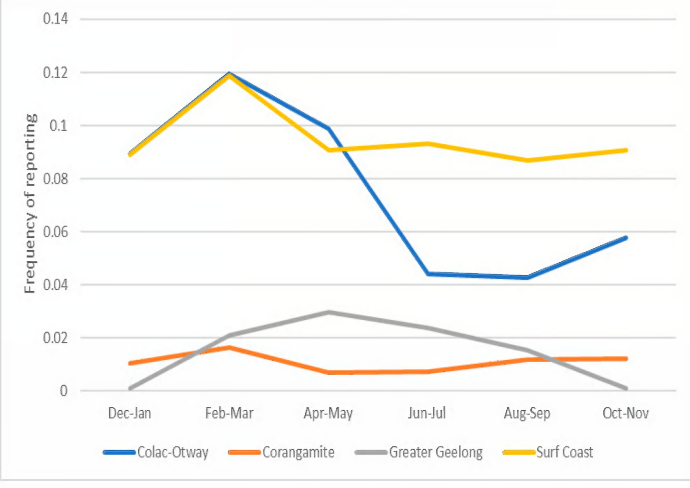


Figure 2: Frequency of reporting of Gang-gangs from the Otways region for the period 2013–2022 by local government area (eBird)

Large flocks, defined here as those comprising 10 or more birds, are recorded in the Otways region year-round (see Figure 3). The frequency with which large flocks are observed is strongly correlated with the frequency with which Gang-gangs are reported (r=0.93[2]) (see Figure 1), indicating that the proportion of the Gang-gang population in large flocks is more or less constant year-round.

In summary, the breeding season for Gang-gangs in the Otways region is likely to be October–January, but there are few, if any, documented nesting records.

If you are fortunate enough to discover an active nest, record the event in eBird or elsewhere, but obscure the precise location in order to protect the birds from unwelcome attention. As winter approaches, a portion of the population drifts eastward towards Surf Coast and Greater Geelong, returning to Colac-Otway by the next breeding season. A constant proportion of the population is encountered in large flocks throughout the year.

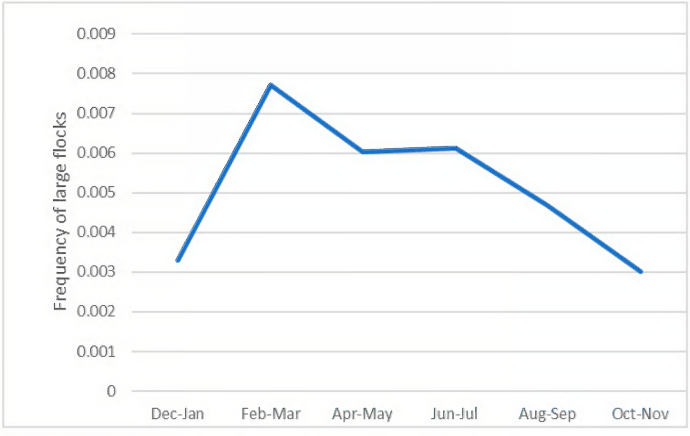


Figure 3: Frequency of reporting of large flocks of Gang-gangs (ten or more birds) from the Otways region for the period 2013–2022

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[2] Microsoft 365 Excel CORREL function.

Bird Group excursion report

Eynesbury

25 May 2023

Brad Ferrier

A cool morning with a brisk west-northwesterly wind greeted a small group of 11 keen observers at Eynesbury Forest. This protected area is dominated by Grey Box *Eucalyptus microcarpa*. After signing in and a brief discussion about the history of the area we entered the forest and began our slow four km walk.

It wasn't long before we started to observe birds and enter them into the eBird portal. Two cuckoo species could be heard calling, specifically a Horsfield's Bronze Cuckoo and two Fan-tailed Cuckoos. Yellow Thornbills were seen around head height in vegetation which was a nice surprise. An almost equal number of Striated and Spotted Pardalotes were a joy to hear, typically busy and gleaning insects mostly from the surrounding eucalypt foliage. Raptors were present early in our travels and the observation of two Little Eagles, two Wedge-tailed Eagles and a Whistling Kite was a treat.

Seed eaters were well represented. We saw Crested Pigeons, Red-browed Finches, Red-rumped Parrots, Galahs and both Eastern and Crimson Rosellas. Other seed and nectar eaters such as Purple-crowned and Rainbow Lorikeets appeared as well. Honeyeaters were present in most areas, namely Brown-headed, White-plumed and Spiny-cheeked. Red Wattlebirds delighted us also.

Highlights of the day were the sightings of two Jacky Winters, three Silvereyes, a Golden Whistler and 13 Brown Treecreepers. All the while we walked, the chipping sounds of Superb Fairywrens kept us company.

A good day was had by all, with 33 species observed in total (**eBird list**).

Brown Treecreeper

Eastern Rosella

Jacky Winter

Photos: Karyn Brown

Bird Group excursion report

Inverleigh

22 June 2023

Trevor Hodson

Eastern Yellow Robin Photo: Karyn Brown

Fan-tailed Cuckoo Photo: Karyn Brown

White-browed Scrubwren Photo: Margaret Alcorn

Meeting point for the visit to Inverleigh was the carpark at Lawson Reserve. The group was 24-strong and included a member of the Friends of the Inverleigh Common, Eliza Peel. The day was slightly overcast with a fresh breeze. As per usual, birding started in the carpark as people enrolled and listened to the plans for the day.

Our first part of the morning was a walk from the carpark along the Leigh River to the railway bridge. Crested Pigeons, now a common sight, were found perched on power lines. Purple-crowned and Rainbow Lorikeets were busy in the canopies of various eucalypts in the carpark. Both Eastern and Crimson Rosellas were encountered. A full array of honeyeaters featured—New Holland, White-eared, White-plumed, Brown-headed and their larger cousin the Red Wattlebird. Fan-tailed Cuckoos were heard calling. Both Spotted and Striated Pardalotes were seen and, in the shrubbery, White-browed Scrubwrens were seen and heard. Along the riverbank we were followed by a Grey Shrikethrush, calling tunefully. In the river itself were several Dusky Moorhens. A Black-faced Cuckooshrike was found perching high in the dead limbs of a eucalypt adjacent to a paddock to the south. A flight of nearly 30 Little Corellas flew over and several Galahs also flew over later in the walk. Sulphur-crested Cockatoos made their presence known with their raucous call. Australian Magpies were seen also in the paddock and an ever-entertaining Willie Wagtail made an appearance as we meandered along the path.

In the same paddock a lone Straw-necked Ibis was seen. Silvereyes were found in a hawthorn bush and Little Ravens were seen flying over a paddock to the north of the river. Red-browed Finches were seen moving in and out of the neighbouring paddocks. Superb Fairywrens and an occasional Brown

Thornbill were encountered in the areas with more dense scrubby plantings. We had our share of introduced species. The list included: Common Starlings and Mynas, Eurasian Blackbirds, House Sparrows, European Goldfinches and European Greenfinches.

Next stop was the Inverleigh Common or Flora and Fauna Reserve. We pulled up just inside the reserve, on the Old Shelford Track. The highlight was the number of small bush birds displaying. We were greeted by a plethora of Weebills, Brown Thornbills and Silvereyes, allowing people less familiar with these species to imprint these birds in their memory banks.

Honeyeaters were also to the fore with the following species seen: White-plumed, New Holland, White-eared, White-naped and Brown-headed. Both Pardalote species were seen. A Laughing Kookaburra called. Superb Fairywrens scampered among the shrubbery and a Grey Fantail put on its enchanting display. A Grey Shrikethrush called and another Black-faced Cuckooshrike was seen perching high up in the dead limbs of a tree.

One highlight here was the appearance of a Golden Whistler. Several Maned Ducks were seen on arrival. Magpie Larks were seen and heard. Some of our group ventured to the ford over a small waterway nearby and were greeted with a pair of Australasian Grebes who had made a small pond their home. The same lucky group encountered an Eastern Yellow Robin and an Eastern Shrike-tit.

As lunch was being enjoyed a Little Eagle flew over. A Grey Currawong was heard and Noisy Miners made us aware of their presence.

In all, a memorable day with 52 species seen or heard and enjoyed by all.

The eBird lists, courtesy of Graham Possingham, Troy Zanker and Karyn Brown, are as follows:

ebird.org/checklist/S142314127
ebird.org/checklist/S142317749
ebird.org/checklist/S142326259
ebird.org/checklist/S142326371
ebird.org/checklist/S142326526

Bird Group excursion report

Anglesea

27 July 2023

Brad Ferrier

On a bright sunny morning approximately 20 participants signed on for the day at the intersection of Forest and Gum Flats Roads. We followed Firetail Track, and as we progressed our large group quickly divided into two. Participants in the slower group were not only observing birds, but plants also. This involved a lot of kneeling down to identify small terrestrial plants including orchids, carnivorous *Drosera* spp. and other heathland species.

All the time, around and above us was a wonderful range of birds, many seen among the low hanging eucalypt branches, wattles, and other shrubs.

Species seen here include Buff-rumped, Brown and Striated Thornbills, Eastern Spinebills and White-eared, Brown-headed, Yellow-faced and Crescent Honeyeaters. The usual leaf gleaners were present, these being Spotted and Striated Pardalotes in equal numbers. The calls and the odd sighting of White-throated Treecreepers parading around tree trunks in a helical manner were great to observe.

Melodious calls emanated from the beautiful voices of Golden Whistlers and Grey Shrikethrushes as we made our way along the track. Eastern Yellow Robins and several Scarlet Robins kept us company and along the way, overhead, two Wedge-tailed Eagles guided us back to our starting point. The group convened for lunch in bright sunshine.
An enjoyable morning was had by all.

A total of 27 species were observed (**eBird list**).

Bird Group excursion report

Steiglitz Historic Park and Brisbane Ranges National Park

24 August 2023

Brad Ferrier

Eastern Banjo Frog
Photo: Brad Ferrier

Eastern Spinebill
Photo: Karyn Brown

Pink Robin
Photo: Karyn Brown

A group of 21 keen bird observers assembled in the car park adjacent to the historic Steiglitz Courthouse. Cool to mild weather greeted us. Upon the completion of our usual formalities, we all headed off in a south-westerly direction, following a well-worn track that eventually joins the Burchell Trail. This brought us to an area close to the small flood zone of Sutherlands Creek (West Branch).

Our pace soon quickened as there was much interest in the birds ahead of us on the track. Here the exceptional hearing ability and identification skills of a few skilful observers came to the fore. There were so many birds seen that I had my work cut out for me entering the observations into the eBird portal on my phone.

We saw the usual dry woodland birds for this geographic location, namely Red Wattlebirds, White-throated Treecreepers and Eastern Spinebills. Five different species of Honeyeaters were observed, these being the Yellow-faced, New Holland, White-eared, White-naped and Brown-headed. Other birds that we expected to see made an appearance, including Weebills, Brown and Buff-rumped Thornbills, Grey Shrikethrushes and a Golden Whistler. It was joyful to see some sally hunting species, namely one Pink, one Rose and two Eastern Yellow Robins. Highlights of the day were the sighting of a Varied Sittella and hearing the beautiful sound of an Olive-backed Oriole.

Occasionally our walk was accompanied by the cacophonous sound of Sulphur-crested Cockatoos, Long-billed Corellas, Musk Lorikeets and Galahs, as well as the familiar calls of Yellow-tailed Black-Cockatoos passing by above us. We were fortunate to see and hear a Wedge-tailed Eagle, a Brown Goshawk, and a Collared Sparrowhawk flying overhead during the morning.

Post lunch a few of us explored the township and other vegetation zones and compiled some small bird and amphibians lists. Here, beneath two sheets of corrugated iron, we located several species of frogs. These frogs were the Southern Tree Frog *Litoria ewingii* (brown morphology), the Spotted Marsh Frog *Limnodynastes tasmaniensis* and the Eastern Banjo Frog *Limnodynastes dumerilii*.

All participants agreed it was an enjoyable morning, and for those who could stay on, a satisfying day spent observing the beautiful natural features of this area. A total of 43 species were observed (**eBird list**).

Excursion report

Spring Creek, Bellbrae

18 June 2023

Barry Lingham

Introduction

Torquay has grown rapidly over the past 20 years, gradually extending northwards and westwards to meet the unceasing demand for more residential homes and commercial buildings. In 2009, after a strong push by the pro-development lobby to extend the Torquay boundaries beyond Duffields Road, the Surf Coast Shire made a planning amendment declaring a section of the Spring Creek valley as a future urban growth zone. In 2019, the Surf Coast was declared a Distinctive Areas and Landscape (DAL), leading to a review of land use and a successful campaign to save Spring Creek.

GFNC member, Graeme Stockton, is a local botanist with a passion for indigenous plants and the environment. He and others have long–term plans to protect and connect remnant vegetation in Spring Creek. Their plan recognises that nature and landscape are key economic drivers in the Surf Coast with the iconic Great Ocean Road running parallel to the valley. The group has visions to purchase land within the valley as part of a Community Woodland Trust and to rebuild the ecology. Making that vision a reality will be adding value to the visitor experience through formalised bicycle and pedestrian links along Spring Creek's southern ridgeline, by highlighting nature within the valley and partnering with a vibrant arts community.

Bellbrae Reserve

Our excursion to the Spring Creek zone was guided by Graeme.

This small reserve, nestled close to the intersection of the Anglesea and Great Ocean Roads, contains a significant patch of remnant Lowland Forest with heathy understory vegetation. Visitors using the walking tracks can observe an interesting range of plants and bird life.

Local groups have removed infestations of introduced plants, including Flax-leaf Broom from the site. Graeme noted that removing this weed from the Bells Beach area required 20 years of action before the last of the seed bank was exhausted.

The dead flower spikes of Small Grass-tree were common near the car park. Small Grass-tree occurs across a range of EVCs (Ecological Vegetation Classes) but this area is the most eastern extent of heathy habitat in the Surf Coast. Other heathland species observed included Common Heath, Horny Cone-bush, Prickly Cryptandra and Common Beard-heath. Wattles included Varnish Wattle and a single bush of

2019 DISTINCTIVE AREAS AND LANDSCAPES REVIEW OF LAND USE

The Surf Coast Shire proposal to expand urban growth of Torquay into Spring Creek resulted in significant community protests. In 2019, the State government enacted a DAL declaration for the Shire. The purpose was to plan the region's long-term sustainability, effectively balancing growth while protecting the features and characteristics that make the Surf Coast special.

The DAL process reviewed the important environmental, scenic and cultural values of this area and measures needed to protect those values. The local community showed that the ecological values of Spring Creek deserved protection and recommended no further residential development.

After three years of debate, panel hearings and lobbying, the Minister finally recommended that the western town boundary of Torquay should remain at Duffields Road. This highly significant win by the local community resulted from a hard-fought and well-coordinated campaign to achieve the protection of Spring Creek.

Ploughshare Wattle *Acacia gunnii*

Prickly Cryptandra *Cryptandra tomentosa*

Nodding Greenhood *Pterostylis nutans*

Gum leafhopper, Bellbrae Reserve
Photos: Bernie Lingham

Ploughshare Wattle—another species at the eastern end of its local range.

Tree cover consisted of Messmate on the heavier soils and Manna Gum on sandier zones. Significant stands of Cherry Ballart occurred in several areas and other smaller trees included Black Sheoak and Golden Wattle. A few large patches of Nodding Greenhood (orchid) rosettes were seen but only a few small flowers were visible at this early time in their flowering season.

Moving to the southern edge of the reserve we explored the track formed from the disused old Great Ocean Road that runs parallel to the current road. It was very pleasant walking along the track, with trees forming a canopy overhead and glimpses down to the valley below. A Yellow Thornbill and a White-eared Honeyeater were feeding, along with Grey Fantails and Willie Wagtails. There are plans to create a cycle path to link Jan Juc to the Bellbrae Reserve along this corridor.

Extensive planting along the cycle path would link stands of indigenous vegetation on private land to the Bellbrae Reserve. The whole zone along this Spring Creek valley ridgeline could become part of a network of vegetation corridors linking to the riparian zone of the valley. The 100-year habitat plan is to revegetate and connect Spring Creek valley with the Eastern Otways creating an important biolink between the forests of the Otway Range Bioregion and the Grassy Woodlands of the Otway Plain Bioregion. Implementing the plan will require immense effort and money over a long time period, but it is the best chance to retain and enhance the original biodiversity of the area.

Spring Creek valley at Ashmore Road

Our next stop was to the northern side of Spring Creek at the Ashmore Arts facility. Graeme explained how the enterprising owner has gained income and productive use of a small part of the property while still allowing substantial areas of regeneration of indigenous vegetation and removal of weed species. By creating many small buildings that are leased to a range of skilled and inspiring local artists, the site has become a vibrant creative community hub.

We walked along the steep south facing slope, admiring the views across the valley. Much of the grassland reflects the farming history of this site with pasture grasses dominating the upper slopes. However, native grasses still exist in places and a concerted effort is slowly being made to remove Serrated Tussock. Many Bellarine Yellow Gums have been planted to enhance the existing population of this species that is listed as Threatened under the Victorian *Flora and Fauna Guarantee Act 1988*. They were protected using double tree guards to stop damage from rabbits and the Eastern Grey Kangaroos and Black Wallabies that roam on the property. Of particular interest was a single White Elderberry shrub pointed out by Graeme. This species is usually found in the wetter forests of the Otway Ranges.

Other conservation actions for the valley include erecting a variety of nest boxes on long poles that have replaced some of the old fence posts. The poles provide much-needed hollow nest sites for a range of birds and mammals. The habitat will be further enhanced by importing many large logs as habitat for invertebrates and small animals. Earlier GFNC fauna surveys had detected native Swamp Rats, two species of Microbat and a dead Antechinus (species still to be identified). Further surveys are planned over the coming 12 months.

At the bottom of the valley, Spring Creek meandered its way through reed beds towards the estuary where it meets the sea at Torquay. The dedicated efforts of many people have ensured that the natural beauty has been protected.

Thank you

Many thanks to Graeme for sharing his passion for conserving the special habitats of this area. His dedication to the conservation cause over many decades is a credit to him and an inspiration to us all.

Looking at Spring Creek valley, towards Torquay
Photo: Barry Lingham

Excursion report

Sheoaks Picnic Area, Lorne

20 August 2023

Barry Lingham

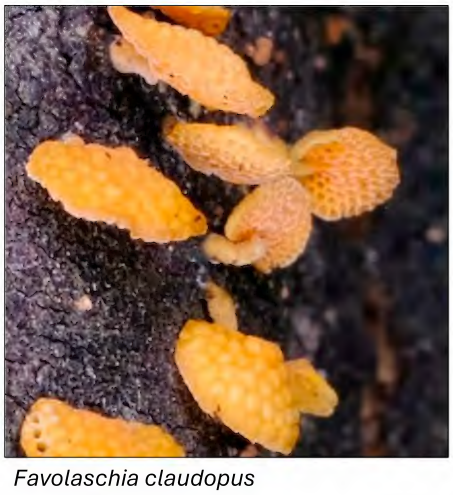
This excursion focused on observation and recording of fungi in the Wet Forest EVC (Environmental Vegetation Classes) (see Map 1 p. 13) found on the Nature Circuit track that begins from the car park of Sheoaks Picnic Area. Our excursion leader, Pete Crowcroft, is a regular visitor to the Otway forests and has developed a keen interest in fungi of the area. Pete and several other GFNC members are enthusiastically improving their skills in photographing fungi.

As we moved into the wet forest alongside the creek, the tall tree canopy and dense fronds from tree-ferns restricted available light. Moisture dripped from foliage and a lush green carpet of ferns, mosses and lichens greeted us. A perfect environment for fungi to thrive! The fungi were mostly growing on rotting woody debris or on the lower bark of tree trunks.

Cortinarius rotundisporus
Photo: Bernie Lingham

Resupinatus subapplicatus
Photo: David Boyle

Stereum illudens
Photo: Graham Possingham



Favolaschia claudopus
Photo: Pete Crowcroft

Stereum sp.
Photo: Jane Morrow

Mycena kurramulla
Photo: Graham Possingham

Cruentomycena viscidocruenta
Photo: Rod Lowther

Descolea recedens
Photo: Pete Crowcroft

A range of photographic techniques were employed to capture images in the challenging conditions. Some took quick snaps, while others used various systems utilising flash photography to obtain images. Techniques and equipment, including standard flashes, ring flashes, diffusers, dual flashes and automatic focus stacking were all in action as participants attempted to capture the beauty and details of many fungi.

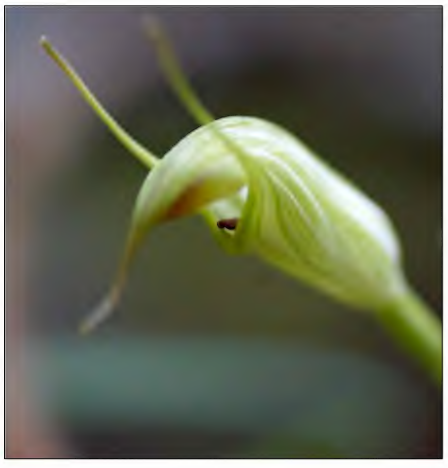
What we saw

Excursion participants uploaded a total of **70 fungi observations** to iNaturalist. Thirty species were identified by our own members or experts within the iNaturalist community. Other observations were identified to order, family or genus levels, or remain unidentified. It was noted that images need to be taken from above and below to show all the features that are essential for fungi identification. Specimen measurements, descriptions of texture or odour, as well as information about substrate and habitat are also valuable.

A very tame Australian King Parrot entertained us by landing on one of our vehicles. Other birds seen included Crescent Honeyeaters and a Gang-gang Cockatoo. The **full list of 18 species** was compiled by Graham and Jenny Possingham.

Amongst other observations, Rod Lowther observed two interesting species during the walk. The small McCoy's Skink *Anepischetosia maccoyi* is a wet forest specialist found in the Otways. The Dark-tip or Blunt-tongue Greenhood

Anepischetosia maccoyi



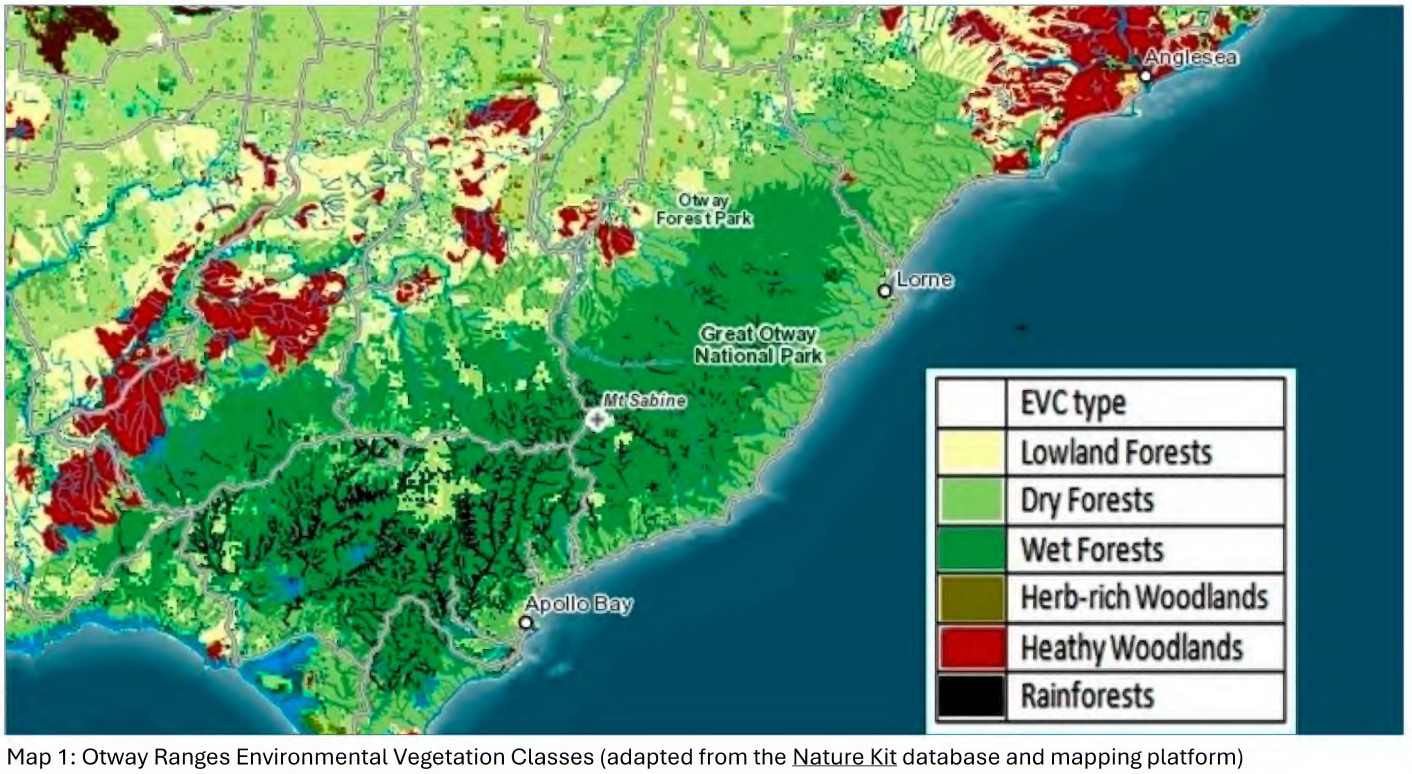
Pterostylis atrans
Photos: Rod Lowther

Pterostylis atrans is also a wet forest specialist of the Otways and the Victorian Alps (identification supplied by iNaturalist community members).

Thanks

Many thanks to Pete Crowcroft for sharing his knowledge of local fungi and wildlife while leading us on the walk. Thanks also to the members who attended and uploaded photographs to iNaturalist.

Otway habitats



Map 1: Otway Ranges Environmental Vegetation Classes (adapted from the Nature Kit database and mapping platform)

The map of of Environmental Vegetation Classes (EVCs) of the Otway Region shows how topography, rainfall and soil type affect vegetation.

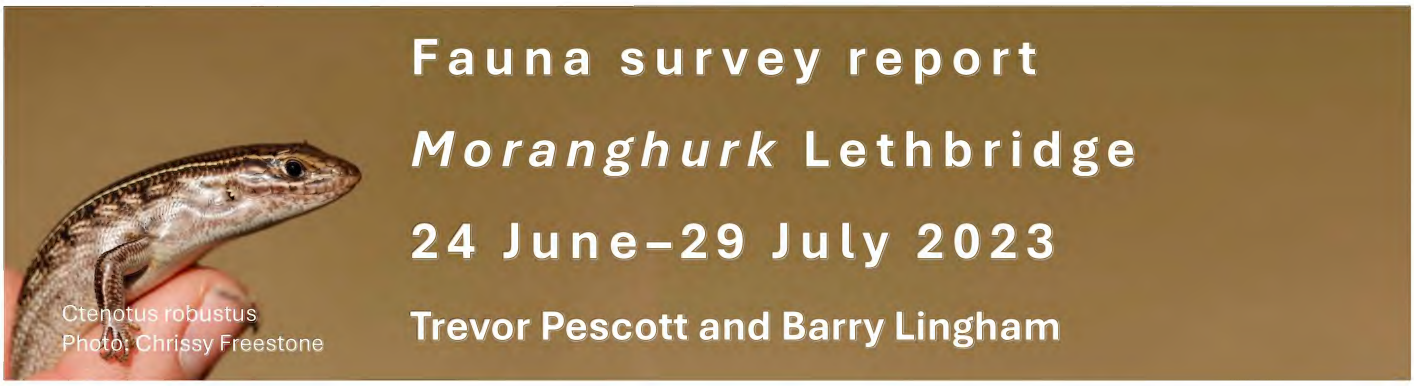
Heathy Woodlands with prolific herbs and scattered low tree cover dominate the Anglesea sandier zones. On slightly more fertile soils, Lowland Forest occurs with a rich herbaceous understorey beneath Messmate-Stringybark forests.

As the elevation rises and rainfall increases slightly in the foothills, Dry Forest EVC with well-drained soils hosts taller trees such as Mountain Grey Gum and Manna Gum (DEECA 2023) .

The Wet Forest EVC dominates the elevated high rainfall zones of the Otway Range. This forest type has four layers—a very tall eucalypt overstorey; scattered understorey trees; a broad-leaved shrubby understorey; and a moist, shaded, fern-rich ground layer usually dominated by tree-ferns. The wettest, protected valleys of the Otways may contain Cool Temperate Rainforest, typified by the presence of Myrtle Beech trees and extensive epiphytic growth. Roads within the Otway Range tend to follow the ridge lines, so rainforest habitats are mostly inaccessible (DEECA 2023).

Reference

(DEECA) Department of Energy, Environment and Climate Action (2023) Bioregional Conservation Status for each BioEVC–Otway Plain & Otway Ranges Bioregions.



Fauna survey report
Moranghurk Lethbridge
24 June–29 July 2023

Trevor Pescott and Barry Lingham

Introduction

The survey involved a preliminary check of fauna beneath a tile grid, plus placement of five motion detection cameras on 24 June. A second tile check and the camera retrieval occurred on 29 July. Brush-tailed Phascogale (Tuan) was the target species for camera detection, plus any other mammal species present.

Weather

The five-week period was slightly warmer than average, with cold nights followed by fine sunny days. It rained on several days but with no heavy falls.

Method

1. Motion camera detection

Five Reconyx HF2X cameras were deployed. Each was focused upon a steel bait station containing bait consisting of peanut butter and rolled oats with molasses and palm oil.

Two cameras were focused on bait attached to the trunks of large Yellow Gums; two with bait on top of large logs; and one with bait at ground level in a rocky zone near the escarpment of the Moorabool River. Each camera took a series of photos and a video of any animal motion-triggering the camera. During the night, the cameras use an infrared flash to show the scene, but the infrared light is invisible to any animal present.

Results

A total of 2875 photos or videos were taken—often with multiple images of the same animals. The exact number of each species picked up by the cameras was difficult to estimate due to the probability of the same animal returning multiple times to the bait over many nights. Table 1 provides a list of mammal species recorded by camera location.

Comments on mammals detected:

- **Brushtail Possums** *Trichosurus vulpecula* were the only species detected at each camera site. One camera was triggered by a Brushtail over 300 times.
- **Eastern Grey Kangaroos** *Macropus giganteus* were mostly noted in daylight as they moved through the zone.
- **Black Wallabies** *Wallabia bicolor* were active both day and night. They actively sought out the bait, appearing to follow the scent to locate it.
- The **Short-beaked Echidna** *Tachyglossus aculeatus* (possibly the same animal seen on two cameras) was recorded before dawn at around 6.00 a.m.
- **Black Rats** *Rattus rattus* were seen climbing the smooth trunks of trees, as well as in various other habitats.

	Bait location				
	Log	Tree trunk	Log	Tree trunk	Amid rocks
Species	Camera 1	Camera 2	Camera 3	Camera 4	Camera 5
Black Rat	✓		✓	✓	✓
Brown Rat					✓
House Mouse	✓		✓		✓
Black Wallaby	✓	✓		✓	✓
Brushtail Possum	✓	✓	✓	✓	✓
Eastern Grey Kangaroo	✓	✓		✓	
Short-beaked Echidna	✓		✓		

Table 1: Mammal species recorded by camera location

- A large **Brown Rat** *Rattus norvegicus* measured about 27 cm head and body, with a tail around 25 cm. It was very active near the rocky cliff zone and spent long periods of time unsuccessfully attempting to get to the bait.
- A few **House Mice** *Mus musculus* were detected on the logs or at ground level.

Despite some previous sightings by the owners of the property, we failed to detect our main camera target species, the Brush-tailed Phascogale.

Bird species detected on camera were Grey Currawong, Crimson Rosella, Grey Shrikethrush, White-browed Scrubwren, Red-browed Finch, Superb Fairywren, White-throated Treecreeper and a group of foraging White-winged Choughs.

Scott Rolph completed a bird survey of the site on 24 June, with 25 species recorded. Highlights included Wedge-tailed Eagles, Buff-rumped Thornbills and Weebills (**observation list**).

2. Tile survey

On Saturday 29 July a check was done on a tile grid originally set out as part of a CCMA search for Striped Legless Lizards and other grassland fauna.

We found a total of 88 tiles set out on elevated land above the Moorabool River. We numbered and pegged the tiles with short stakes for future reference. The tiles had been laid out in 2017 and checked only sporadically since then. The first time we visited the site to check the tiles was 4 October 2017.

Results

A total of 27 individual reptiles and frogs were found, and 28.4 per cent of the tiles were occupied by reptiles or frogs.

The following vertebrate species were recorded:

- **6 Little Whip Snake** *Parasuta flagellum*
- **13 Eastern Striped Skink** *Ctenotus robustus*
- **3 Garden Skink** *Lampropholis guichenoti*
- **1 Eastern Three-lined Skink** *Acritoscincus duperreyi*
- **4 Spotted Marsh Frog** *Limnodynastes tasmaniensis*

It was interesting to note that there were Eastern Striped Skinks under tiles 45–53, all of which are in the one area; perhaps this area is warmer than others at different parts of the survey site.

Of interest also, was a sighting of a juvenile Eastern Brown Snake under a tile, along with a Little Whip Snake, on the initial preliminary survey on 24 June.

Invertebrates

Species found under the tiles, most of which were logged onto iNaturalist for identification:

- **Greenhouse slug** *Milax gagates*
- **Slater** *Armadillidium vulgare*
- **Portugese Millipede** *Ommatoiulus moreleti*
- **Black House Spider** *Badumna insignus*
- **Red-backed Spider** *Latrodectus hasselti*
- **Union Jack Spider** *Tasmanicosa* sp.
- **Elongate springtails** Order Entomobryomorpha
- **Assassin bug** *Oncocephalus* sp.
- **Darkling Beetle** *Adelium* sp.
- **Golden-back Sugar Ant** *Camponotus suffusus* ssp. *suffusus*
- **Green-head Ant** *Rhytidoponera metallica*
- **Pony Ant** *Rhytidoponera* sp.

Other species not under tiles included **Woodlice** *Porcellio scaber*, **Sawfly larvae** *Perga affinis* and empty pupa cases of **Imperial Jezebel** *Delias harpalyce*.

Little Whip Snake (left) and juvenile Eastern Brown Snake, 24/06/23 Photo: Chrissy Freestone

Thanks

Sincere thanks to Ross and Liz Wilkie for again allowing us access to *Moranghurk*. Their property is an excellent example of a working farm using sensitive management of remnant vegetation. Thanks to all who took part in setting, checking and collecting the cameras and tile grids; contributing to the bird list; and listing records of the fauna observed on iNaturalist.

Permits: the fauna survey was carried out under the conditions set out in WSIAEC project approval 38.21, DELWP permit 10010270 and SPFL no. 20072.

Identifying animals from motion detection camera shots

The GFNC Fauna Group purchased five Reconyx HF2X cameras to conduct mammal surveys. They take good quality colour images of passing birds and animals active during daylight.

Photographs taken at night use an infrared flash to illuminate the scene but because mammals (including humans) cannot see in the infrared part of the spectrum, the light is invisible to them. Even in complete darkness, the animals can be observed without being disturbed. We set the cameras to take two or three still images followed by a 10 second video. The images are in black and white. Video footage allows observation of the behaviour and movement of the animals, aiding identification.

Identifying species from camera footage can be tricky.

It helps to have an object of known length to assist in estimating sizes. For example, in the image shown the metal sieve used to protect the bait on the tree is 150 cm across. The rat climbing the tree to investigate the bait therefore has a body size of about 150 cm with a tail that is longer than the body. The ears are rounded.

This fits the criteria for a Black Rat *Rattus rattus*. Note that Black Rats are adept at climbing trees and may prey on nesting birds at night. The smooth bark on this Yellow Gum was easily traversed by this rat.

About *Moranghurk*

The historic *Moranghurk* property is located on the Moorabool River between Lethbridge and Steiglitz. Founded in 1847, it is one of the oldest pastoral properties in Victoria.

After reaching a maximum extent of some 26 000 acres (10 500 ha) in the 1850s, it was reduced to around 2000 acres (800 ha) after subdivision for soldier settlement in the 1950s. Many of the original heritage-listed buildings still stand today.

The property is owned by Ross and Liz Wilkie who have worked to enhance the remnant habitat while still farming the property, and also letting out the old shearers' quarters for accommodation.

Significant stands of Yellow Gum with a grassy understorey are scattered across the property.

The riparian zone along the river frontage is dominated by steep rocky cliffs with a range of smaller trees and shrubs such as Golden Wattles, Cherry Ballart and a species of Kunzea.

Moranghurk has been part of several Corangamite Catchment Management Authority projects that have included fauna surveys by the GFNC. A tile grid on site is used to check on the reptile and frog population.

Previous GFNC fauna surveys have occurred at *Moranghurk* in 2017, 2018, 2019 and 2020.

Long-nosed Potoroos in the Otway Ranges

Peter Homan

The Long-nosed Potoroo *Potorous tridactylus* is a small member of the Potoroidae family weighing up to 1600 g (Menkhorst and Knight 2011). The species usually inhabits areas with a dense understorey such as that found in wet gullies, Heathy Woodland and Lowland Forest. The Long-nosed Potoroo has been found in numerous locations in south-west Victoria (Menkhorst 1995); however, many populations are isolated in relatively small areas of suitable habitat and therefore the species is categorised as vulnerable under the Victorian *Flora and Fauna Guarantee Act 1988* (DELWP 2023).

Long-nosed Potoroo, Yaugher, 2013
Photo: Trevor Pescott

Long-nosed Potoroos were previously common in forested areas and road-side verges throughout the Naringal district on the Otway Plain east of Warrnambool (Bennett 1990, 1993). One of the strongholds for the species was Ralph Illidge Sanctuary at Naringal East (Menkhorst 1995). Long-nosed Potoroos dig distinctive feed holes in top soil and create small runway-tunnels through dense ground and shrub cover (Menkhorst 1995). These features were abundant when I visited the sanctuary in April 2005. However, an intensive fauna survey using live-trapping and surveillance cameras at the sanctuary in November 2019 failed to record Long-nosed Potoroo (Homan 2019). Potoroo feed holes and runway-tunnels were completely absent in 2019. Unfortunately, the last confirmed record for Long-nosed Potoroo at the Ralph Illidge Sanctuary was in 2011 when one individual was detected by surveillance camera (Trust for Nature unpubl. data).

A site in the Otway Region near Yaugher, approximately 2 km north of Forrest, supports a population of Long-nosed Potoroo. In 2013, important work by the Fauna Group of GFNC, led by Trevor Pescott, commenced in this part of the Otway Forest Park. Part of the area was fuel-reduction burnt in 2011 and therefore the main purpose of the study was to monitor the re-colonising by mammals of burnt areas from unburnt areas. Heightened concern about the potential of wildfire impact on the township of Lorne led to increased frequency and larger areas of fuel reduction in this forested zone. Trevor was very worried that frequent burning of large areas of the forest near Yaugher would lead to extinction of the potoroo population.

Remote surveillance cameras have been the main survey method during this study. During the first survey session in March 2013 numerous images of Long-nosed Potoroos were captured (Pescott 2013). The study, known as Caspers-Yaugher, has continued and additional images of Long-nosed Potoroos have been obtained in 2017, 2018 and 2019 (see Fig. 1) (GFNC unpubl. data). In 2018, Trevor noted ‘Although we have not yet found any potoroos in the 2014-spring-burnt area where they were abundant before it was burnt, there is a small number in the forest near the house about 2 km distant, where one was photographed on 22/02/18 (TP)’.

Figure 1. Long-nosed Potoroo by surveillance camera, Caspers-Yaugher, 2019

Figure 2. Long-nosed Potoroo by surveillance camera, Cherry Tree Creek valley, 2023

Figure 3. Long-nosed Potoroo by surveillance camera, Cherry Tree Creek valley, 2023

My introduction to the Long-nosed Potoroo was during a field trip with the Mammal Survey Group of the FNCV to an area inland of Airey's Inlet in the eastern Otways in 1969. One of the sites we surveyed contained a large patch of very dense vegetation in a low-lying area near Painkalac Creek and our cage traps set at this site captured several Long-nosed Potoroos. Apart from some limited trapping experience in East Gippsland in 2009, my next exposure to the species occurred when I assisted with Project Hawkeye, which involved an intensive mammal survey in the Carlisle Heathlands over two weeks in February 2014. Whilst our cage traps failed to capture any Long-nosed Potoroos, surveillance cameras picked up several images of the species (DELWP unpubl. data).

Following the success of surveillance cameras in the Carlisle Heathlands, I was inspired to set up a long-term camera study of nocturnal mammals in the Sheoak Creek valley, upstream of the Sheoak Picnic Area in the Great Otway National Park near Lorne. Between December 2014 and November 2018, I completed 324 camera-nights which produced 9520 videos of nocturnal mammals. Most of the records were of the more common native mammals; however, Long-nosed Potoroos were recorded at nine sites in dense vegetation in the lower part of the valley.

Recently I set one camera in the Cherry Tree Creek valley on the south-western outskirts of Lorne, very close to the town. I have used this site over the years to test new cameras and to trial various camera settings. On all previous occasions the only species detected has been Bush Rats *Rattus fuscipes*; however, on this occasion in July 2023, the camera picked up several images of a Long-nosed Potoroo, probably a young animal (see Figs. 2 & 3). This record was most unexpected especially being so close to human habitation.

Whilst Long-nosed Potoroo populations are under threat throughout most of the Otway Plain, the situation in the neighbouring Otway Ranges is very different. Fortunately, the Otway Ranges contain many areas with dense vegetation similar to the Sheoak Creek valley, the Cherry Tree Creek valley and the Caspers-Yaugher study site. It is therefore very likely that populations of Long-nosed Potoroos persist in many parts of the Otway Ranges and that

this region probably supports the most secure population of this threatened mammal in Victoria.

Acknowledgements

Surveys at Caspers-Yaugher, in the Sheoak Creek valley and Cherry Tree Creek valley were conducted under the terms of several Research Permits issued by DELWP and by approval of the Wildlife and Small Institutions Animal Ethics Committee.

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Black-shouldered Kites aerial food exchange

Margaret Alcorn

On the morning of 4 July near the Barwon River at Breakwater, I photographed this exchange of food between an adult and a young Black-shouldered Kite. The young bird called as it flew up to meet the adult which was carrying a mouse. The adult held out the mouse with its right foot. The young bird grasped the mouse with its left foot and beak before carrying it off in its beak.

Fauna observation highlights

June–August

Barry Lingham

Observations are sourced from the **GFNC Fauna Collection** project on iNaturalist or the **GFNC Observations page.** Listed below are selected observations of unusual species, species out of normal range or those exhibiting interesting behaviour.

MAMMAL SPECIES	GENERAL COMMENTS ON OBSERVATIONS
Common Dolphin Lorne; 2 with Gannets circling above	The Common Dolphin is a creature of the open ocean. Birds circling above can indicate the presence of marine mammals.
Burrunan Dolphin Port Phillip Bay off Edwards Point 12 seen with Silver Gulls above	Burrunan Dolphin is found mostly in Port Phillip Bay.
Greater Glider Wombat State Forest	Greater Glider population is found in the wetter parts of the Great Dividing Range, as far west as the Daylesford area and south to around the Ballarat- Melbourne Road. They require old-growth trees containing hollows.
Grey-headed Flying Fox Lara; approx. 1000 present	A colony in Roraima Nursery display gardens. It seems that this is a second major colony in the Geelong area with the main colony being in Eastern Park.
Koala Steiglitz; Bannockburn Flora & Fauna Reserve; Meredith; Brisbane Ranges NP	Koala populations have fluctuated across the region and some concern has been expressed about the ability of koalas to move between habitats due to a lack of effective vegetation links.
Bare-nosed Wombat (Common Wombat) Long Forest	There are a few scattered records for the Bare-nosed (or Common) Wombat in Western Victoria and south of the Ballarat-Melbourne Road. It is mainly found to the east of Daylesford. Long Forest is at the southern end of the species' usual range.
Swamp Wallaby Point Lonsdale	One (or more) seen regularly around Pt Lonsdale-Queenscliff zone. They are rarely recorded in this area.
Platypus Barwon River/Ceres; 1 Barwon River/Baum's Weir; 1 Moorabool River/Batesford; 1	Platypus have been recorded recently in both of the main rivers near Geelong. Early morning is a good time to see them.
Short-beaked Echidna Meredith; 1 young animal Brisbane Ranges NP; 5 in a train	A young Short-beaked Echidna (puggle) at Meredith shows successful breeding in the area. The train of echidnas at the Brisbane Ranges was probably a group of males following a female, hoping to mate with her.
Water Rat (Rakali) Jerringot; 1	An interesting record from the Jerringot site in urban Geelong.

REPTILE SPECIES	GENERAL COMMENTS ON OBSERVATIONS
Little Whip Snake Bannockburn and Lethbridge areas; 6	Up to 6 of these small snakes have been recorded on GFNC tile surveys at two locations. They prey upon frogs and small lizards.
Tiger Snake Barwon River, Buckley Falls;1	A late winter record from early August.
Cunningham's Skink Barwon River, Buckley Falls; 2	The rocky areas around Buckley Falls are preferred habitat of this large skink. They can also be found in the You Yangs.
Eastern Striped Skink Lethbridge area;13	Many seen during a GFNC tile survey on private property (see pp. 14–15). Few had been seen there previously so this may indicate a preference for the species to use tiles in the winter period.
Common Bluetongue Highton; 1	A garden resident that reappeared on 25 August after winter. Many reptiles are waking up from their winter torpor.
McCoy's Skink Lorne; 1	This small, elongated skink with short limbs has variable colouration (black, brown or silvery grey/blue). The species is found in wetter, cooler areas of south-east Australia from Nelson through to the Sydney region.

Invertebrates observation highlights June–August

Rod Lowther

During winter, 22 observers added a total of 263 observations to the **iNaturalist GFNC Invertebrates Collection**. This project collects all observations in the Phylum Arthropoda (Arthropods) which is split into four significant subphyla:

- Chelicerata (Chelicerates)–consisting of sea spiders and arachnids
- Crustacea (Crustaceans)–a large diverse group including crabs, crayfish, shrimp and prawns
- Hexapoda (Hexapods)–insects (Insecta) being the largest Class in this subphylum
- Myriapoda (Myriapods)–containing arthropods such as millipedes and centipedes—all terrestrial.

Over winter many insects are in a dormant life phase, for example as egg, lava or juvenile and can be difficult to find and record. In spring we very quickly become aware of the many species emerging or becoming active again and the number of observations in our project accelerates.

This invertebrates report focuses on a few interesting observations from across the different subphyla, but those that are not insects or spiders. While many of the non-insect observations within the project may not be identified to species level and therefore tagged as 'Research grade', it is nevertheless very important to submit records. The more observations/data recorded, over time may help researchers into the future. For example, data on Arthropod distribution may assist in understanding impacts of climate change and other factors that impact the overall ecological health of the environment.

Mite **Family Eriorhynchidae** (Chelicerate)

Mite ***Linopodes* sp.** (Chelicerate)

Cave Centipede ***Cryptops* sp.** (Myriapod)

This very small mite was photographed by Pete Crowcroft, 20 August on the club excursion to Lorne. Members of this Family live in moss and lichen but little is known about life cycle and feeding habits. Although tiny, the mite stands out in its environment with a blue body and red legs.

Pictured is another mite observed by Pete Crowcroft at Barwon Downs on 5 June. A key characteristic of species in this genus (which has worldwide distribution) is the long length of legs relative to body size. Most of the Australian iNaturalist records show the mite walking on and within the structures of fungi.

This centipede is a member of the Family Cryptopidae—of which all are blind and have 21 trunk segments, each with a pair of legs. This observation is by Pete Crowcroft, recorded on 19 August in Lorne.

Common Rough Woodlouse ***Porcellio scaber*** (Crustacean)

Common Yabby ***Cherax destructor*** (Crustacean)

Dragon Springtail ***Acanthanura* sp.** (Hexapod)

Helen Schofield photographed these woodlouse, 20 June at Bannockburn. *Porcellio scaber* is an introduced species that is very common in urban and peri-urban environments, preferring damp areas. The species feeds on decaying leaf litter and other rotting plant matter. It can be found under wood where spiders and centipedes prey upon them. For a small creature it has a long life expectancy of about 2–3 years.

This freshwater crustacean species is listed as vulnerable worldwide. It was observed by Wendy Cook in the Meredith area in July. Members of this hardy species are tolerant of high temperatures, salinity and low dissolved oxygen levels making it possible for them to live in marginal habitats. They prefer still or slow-moving water for protection. Yabbies are omnivorous. In the *Cherax* genus there are six species—five in Australia with the Common Yabby the most widespread.

Along with others, I observed this Springtail on the club excursion to Lorne on 20 August. It is quite small (around 5–10 mm) and lives in decaying wood where it eats microflora bacteria and fungi material. They have six limbs/legs and are classified as Hexapods rather than insects as they don't have three body parts nor wings. Springtails as so named as they have a specialised organ that sits under their abdomen, held in place by a small hook, which can be released causing the organ to push on the ground and launch the Springtail into the air.

Butterfly observations summary June–August

Valda Dedman

Over the three winter months there have been few butterfly observations—mostly Cabbage Whites in ones or twos, Imperial Jezebels and towards the end of the winter season, Yellow Admirals.

An Imperial Jezebel was seen on 4 June at Lake Connewarre Wildlife Reserve; one on 30 July at the Ironbark Basin; one on 20 August at Distillery Creek; one on 25 August at Kennett River; and one at Anglesea on 26 August.

There is a record of one Monarch observed at Darley on 12 July. Yellow Admirals were observed as follows: one on 31 July at Geelong West; one on 15 August in Geelong; one on 20 August in Geelong; and one on 21 August at Clifton Springs.

Two Varied Dusky Blues were seen in the Brisbane Ranges: one on 24 August and another on 25 August.

Full details of the butterfly observations can be found on the **GFNC website**, and in **iNaturalist** where you can find more information about the species. I encourage you to continue to record what you see.

Bird observation highlights

June–August

John Newman and Craig Morley

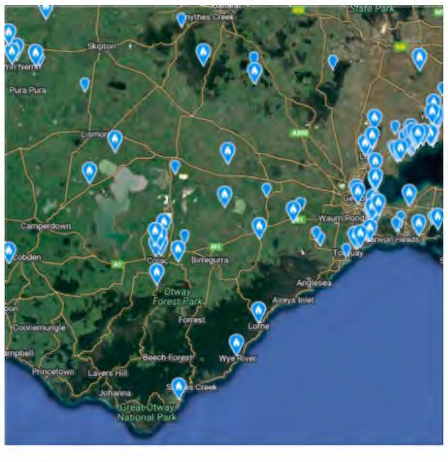
With the exciting introduction of a three-monthly magazine, these bird notes now focus on several species of interest reported during June–July. The species were determined from consideration of the many observations recorded. The notes primarily concentrate on a comparison of winter and summer i.e. June–July 2023 occurrences/observations with December 2022–January 2023.

This report uses seasons as per the time periods presented in the ***Geelong Bird Report 2013-2016*** (p. 4). 'Winter' (June–July) avoids possible confusion of early spring returns in August. 'Early summer' is defined as December–January.

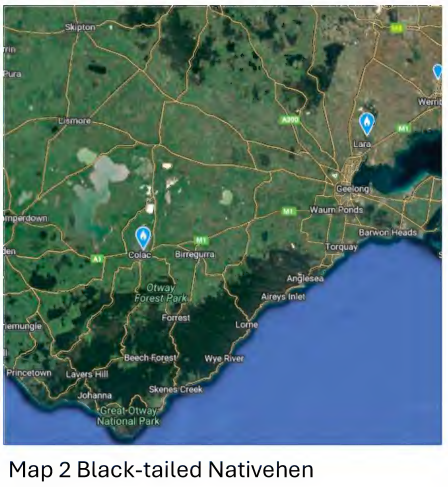
The maps presented were produced using **eBird** mapping tool (accessed 8 August 2023). Data includes both **club records** and those submitted by anyone recording the presence of the species in our region. Note that 'pins' do not indicate how many birds have been seen, simply the locations where birds were observed. Actual numbers of birds can be seen on **club records** or using the 'explore species maps' in eBird for each of the species highlighted (restricting the date range to that used in our maps). Also note that red points indicate more recent records and blue points, older records.

Remember that many **other interesting records** were submitted throughout June and July. We encourage readers to check the wide range of fascinating sightings and bird behaviours recorded, including records of birds such as **Black-chinned Honeyeaters**, **Brown Quails**, **Fairy Terns**, **Freckled Ducks**, **Lewin's Rails**, **Osprey** and **Swift Parrots**.

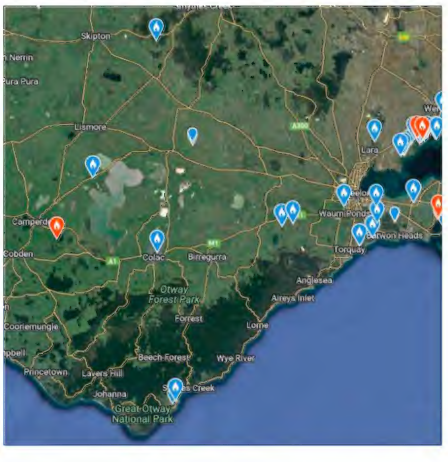
Black-tailed Nativehen is an uncommon and irruptive wetland species across the Geelong region. In the family *Rallidae* with the rails, crakes, swamphens and moorhens, these bantam-sized birds inhabit wetlands and Lignum swamps. They can be quite secretive, keeping well-hidden unless they are out foraging. Every now and again there is an irruption of the species, presumably following good breeding conditions further inland with an increase (sometimes an explosion) in numbers when they then turn up in our wetlands.



Map 1 Black-tailed Nativehen 2016–2021



Map 2 Black-tailed Nativehen 2022

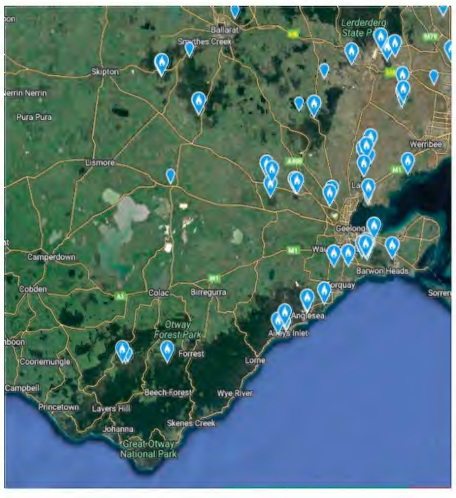


Map 3 Black-tailed Nativehen January–August 2023

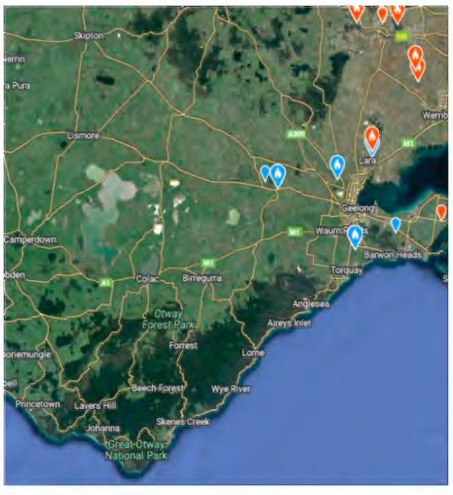
This year (Map 3) we have seen a marked increase in sightings indicated by the smattering of records across the Bellarine Peninsula—no doubt following the flooding across much of Australia earlier and in recent years. Mapping (Maps 1 and 2) illustrates the paucity of records in our broader district in previous years, with the exception of Lake Colac and Lara. Bring on 2023 and now the records are widely spread across the Bellarine Peninsula, some Surf Coast areas and western lakes. The brilliantly coloured coral-red legs and

apple-green bill of this otherwise relatively sombre-plumaged bird are a delight to behold. Hopefully they will remain in good numbers locally for many months to come.

Dusky Woodswallow is a bird that elicits fond feelings. Its enticing and instantly recognisable calls are often heard in the drier woodlands and riparian areas of the Geelong region. Watching them make hunting forays from exposed perches, hawking flying insects provides immense enjoyment. Their chattering chirping calls are often heard before the birds are seen. They are surely another of the most welcome signals of spring?



Map 4 Dusky Woodswallow
December 2022–January 2023

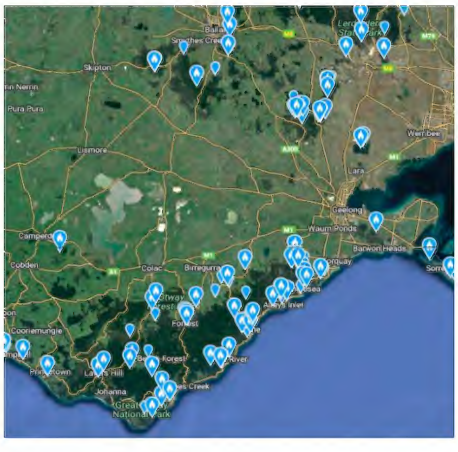


Map 5 Dusky Woodswallow
June–July 2023

The maps (Maps 4 and 5) are great evidence that whilst the peak summer recording period of December and January indicate widespread records throughout most of our region (including the drier woodlands, the Otway Ranges and many urban areas), there is a distinct presence of birds, but over a low number of locations, right through the winter. The winter records of birds seen at Rice Reserve, roadside vegetation in Wallington and farm tree plantings near St. Leonards complement a Moorabool River record from Batesford and several at Inverleigh in woodland.

Compare that to the summer records of December–January with birds seen right along the Surf Coast, as well as many vegetated sites across Greater Geelong and Bellarine Peninsula areas—with presumably breeding records in the mix. It is well worth observers taking particular note and submitting records of winter Dusky Woodswallows.

Eastern Spinebill is one bird that might suggest winter is here in the suburbs of Geelong. Perhaps the closest bird we have to the hummingbird, the quick flitting movement of the Eastern Spinebill with a flash of rusty rufous belly and flanks and a white edged tail, may be the first sign that your garden is being visited by this streamlined beauty. Quite capable of hovering briefly at the bell-shaped flowers of Correa and Salvia, it gives some indication of what hummingbirds may look like.



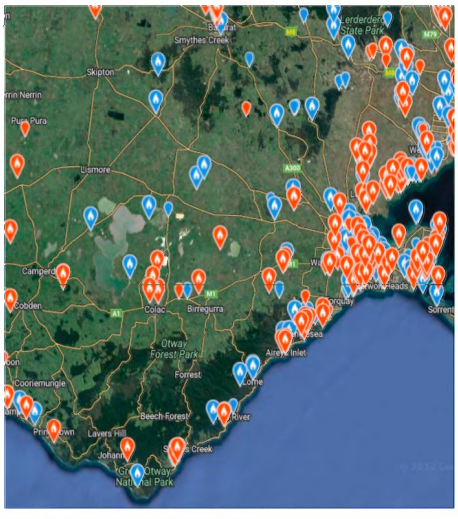
Map 6 Eastern Spinebill
December 2022–January 2023

Map 7 Eastern Spinebill
June–July 2023

The maps (Maps 6 and 7) are fascinating. Summer sees these birds widely scattered through the entire Otway Ranges—one of the known breeding areas for this diminutive honeyeater. Summer records on the Bellarine Peninsula are rare. By winter there has been mass dispersal in an easterly direction into the foothills of the Otway Ranges, rural outskirts and suburban neighbourhoods of Geelong, and right across the Bellarine Peninsula. We have been enjoying this winter dispersal through June–July as club records indicate. It has been fascinating to note the observation of Eastern Spinebills across Lake Connewarre (surely clear evidence of this dispersal) and culminating with records at Edwards Point/St Leonards and many Geelong urban, suburban and peri-urban gardens, not forgetting the Geelong Botanic Gardens.

Welcome Swallow is one of the most loved of all Australian birds. We often look forward to the timely arrival of this bird in our urban neighbourhoods. Its delicate and masterful flight and glorious colours of deep glossy blue-black upperparts and rusty cinnamon face and chest, with its forked tail, is truly a sight to behold. However, is it a harbinger of spring and absent during the colder months? Winter records suggest that there are clearly numerous observations of Welcome Swallows across the region—as is also the case in the early/late summer months (Maps 8 and 9). Remembering that the maps present observation locations and not the number of records nor bird numbers, it is quite remarkable how widespread these records are over the heart of winter and from all corners of our district.

Map 8 Welcome Swallow
December 2022–January 2023



Map 9 Welcome Swallow
June–July 2023

We hope you've enjoyed our first effort at assessing several months of data and if there is interest to learn more about the 'explore species maps' in eBird we can organise a zoom session. Please let us know!

Reference

Morley, C. (ed.) (2018) *Geelong Bird Report 2013–2016*.

Boneseeding report

You Yangs Regional Park

26 August 2023

Rob Beardsley

Our working bee concluded the club's 60th anniversary year of its You Yangs Boneseed Control Program. Working conditions were ideal and with an attendance of ten club members plus five most welcome guest/visitors we quickly cleared regrowth that was easily spotted by early flowering. Many of the 'young legs' went on to grapple with old-growth boneseed bushes in non-priority locations. Our sincere thanks and well done to all who participated.

The state of our site is now remarkable, proof that given a clean slate mother nature will look after the rest. The regrowth of indigenous flora is already impressive and the coming decades will add to the anticipation of its ever-changing state, provided the club's You Yangs program remains intact. It is indeed a great example of what foresight and long-term diligence can achieve over 60 years.

'Our hill' which has always been the primary focus of our efforts, is now clear of all boneseed and back to its showcase condition following the setback caused by the COVID years. Needless to say though, by May 2024, when our next outing will take place, some regrowth from dormant and fauna-spread seed will have reappeared and require our attention again. On a persuasive note, when it comes to removal of first-year growth the physical effort required couldn't be easier.

Can you help out? Please pencil in the Saturday and/or Sunday of the last weekend in May 2024 for the next working bee.

Fallstreak hole

Marilyn Hewish

I photographed this fallstreak hole at Bacchus Marsh on 5 July during an afternoon walk.

These form in high layers of cloud made up of supercooled water droplets (at or below 0^0C but not frozen). Some droplets freeze around nuclei (e.g. dust particles) and this sets off a chain reaction. A whole section falls out of the cloud as ice particles and leaves a hole.

I don't think it occurs commonly at this latitude as I've only seen it once before, in 2008—and I'm always looking at the sky.

Skywatching

Wendy Cook

I enjoy watching the sky and the effects of the sun's light, the light of early morning highlighting treetops and hills, clouds of varying shapes and colours, trees turning gold in the late afternoon, colourful sunrises and sunsets, and glittering stars on dark nights. On some days, the sky puts on a spectacular display. The afternoon and evening of 8 November 2022 were particularly interesting.

For most of the day, it was warm and humid. The morning sky was blue with cumulus clouds peeking over the northern horizon. During the day, they rose and began to spread across the sky, huge piles of puffy white reflecting the sun above flat grey bases, each individual puff outlined in pale grey.

Late in the afternoon, I was driving south towards home. Ahead and to the east, were cumulus clouds. To the west, a dull cloud of grey reached from high in the sky, all the way to the ground, pouring rain onto the land as it passed. In front of this cloud, numerous tall wind towers intruded on the view, catching the sun on their white rotating blades. The road was dry until I turned west. Within a few hundred metres, the rain was heavy. Water flowed across the road and formed creeks along its edges. The puddles on our driveway had expanded. There was 11 mm in the rain gauge. Thunder rumbled and there were occasional flashes of lightning. As the rain lightened, the sun shone. Its white light entered the raindrops, passed through them and split into many colours. To the east, I saw a rainbow, a complete arch reaching high

against a backdrop of grey cloud. Over the next few minutes, it brightened, and two more arches of colour became visible. One was a reflection just inside the main arch, narrow bands of colour in the reverse order to those of the rainbow. Further out was another reflection, wider and higher than the main arch, but paler, the colours also in reverse order.

I missed the sunset, although I had a glimpse through a window, of orange on the clouds to the east. I was waiting for a rarer event, a lunar eclipse. That night, there was a full moon. Although during the night, our side of our planet faces away from the sun, sunlight still shines on the moon. Its whiteness is due to the sun's rays reflecting from its surface. Usually, the full moon orbits slightly above or below the Earth, and sunlight can reach it. That night, the Earth was to pass directly between the sun and the moon, preventing the sun's white light from reaching the moon. For part of its nightly journey, the moon would travel through the Earth's shadow. The sun's rays would pass through the Earth's atmosphere to reach the moon. White light is made up of all the colours of the rainbow. When the sun's light reached the atmosphere, it would separate into those colours. Colours with shorter wavelengths, such as blue, would bend outwards away from the moon. Red light has a longer wavelength and would bend towards the Earth's shadow, then continue onwards to the moon. The sky was still overcast. If I were to watch the lunar eclipse, I needed the clouds to clear.

After the moon rose, its light was dulled behind the haze of cloud. Already, there was a smudge of darkness on its lower edge, part of the Earth's round shadow. Gradually, the clouds thinned and vanished. The smudge enlarged, until only a bright white sliver of light could be seen along the moon's upper edge. The rest of the moon was red-brown. Gradually, the Earth shadowed the whole moon. A portion of it was brighter than the rest, appearing orange-brown.

As I stood outside, I saw stars shining high above. One star passed slowly across the sky, a man-made satellite circling the planet. The creek, usually silent, was audible after the afternoon's downpour. Frogs called from dams, Pobblebonks calling their name, creaks of Common Eastern Froglets and clicks of Spotted Marsh Frogs. A Brushtail Possum growled from the trees. From further away, I could hear the 'mopoke' call of a Southern Boobook. The moon remained in shadow. I went indoors, but peeked at the outside world intermittently. I saw the first white sliver of sunlight reflecting in a curve on the bottom edge of the moon, where the smudge had first appeared. Later, the whiteness had increased, until there was just a dark smudge near the top of the moon, the last portion to be shadowed by the Earth, and the last to emerge from darkness. On my last visit outside, the moon had left the Earth's shadow. It was full and white with a circle of glow around it. It floodlit the world, dimming the stars, only the brightest being visible. Night creatures were silent, but in the moon's light, bright enough to cast shadows, a Australian Magpie sang as if it was day.

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All websites accessed November 2022 and September 2023.

Published in Meredith and District News, December 2022.

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P.O. Box 1047
Geelong, Vic. 3220
info@gfnc.org.au
www.gfnc.org.au/